

ABSTRACT

5 A method and system for fabricating mandrels which are used as pressure intensifiers for cobonding or consolidation fabrication of composite assemblies. Mandrel molds are created using rapid prototyping, such as stereolithography, generated directly from a virtual model which is created with a processor aided design type program requiring little or no engineering drawings. A curable fluid material is then injected into a mold cavity which defines the mandrel. The mandrel can be applied in a specific process for cobonding cured detailed parts using an uncured element enabling intensified pressure to the joint or fillet area during the bonding process.